



2104159

GC/MS Volatiles:

The samples were analyzed using GC/MS following the current revision of SOP 525 based on SW-846 Method 8260C. The samples were also analyzed for Gasoline Range Organics (GRO).

All laboratory control sample and laboratory control sample duplicate recoveries and RPDs were within the acceptance criteria with the following exception:

Spiked Compound	QC Sample	Direction
Gasoline range organics	VL210419-33LCS	High

This compound was not detected above the reporting limit in the associated sample. No further action was taken.

All acceptance criteria were met.

DRO:

The samples were analyzed following the current revision of SOP 406 generally based on SW-846 Methods 8000C and 8015D. TEPH is a multicomponent mixture and is quantitated by summing the entire carbon range, rather than individual peaks. The carbon range integrated in this test extends from C10 to C28.

All acceptance criteria were met.

Metals:

The samples were analyzed following Methods for the Determination of Metals in Environmental Samples – Supplement 1 procedures. Analysis by ICPMS followed method 200.8 and the current revision of SOP 827.

The samples were to be analyzed for dissolved metals. The samples were filtered through a 0.45 micron filter and preserved with nitric acid to a pH less than two prior to analysis.

All acceptance criteria were met.

Inorganics:

The sample was analyzed following EMSL and Standard Method procedures for the current revisions of the following SOPs and methods:



<u>Analyte</u>	<u>Method</u>	<u>SOP #</u>
Alkalinity	SM2320B	1106
Bicarbonate	SM2320B	1106
Carbonate	SM2320B	1106
pH	SM4500-H ⁺ B	1126
Specific conductance	SM2510B	1128
TDS	SM2540C	1101
Bromide	300.0 Revision 2.1	1113
Chloride	300.0 Revision 2.1	1113
Fluoride	300.0 Revision 2.1	1113
Nitrate as N	300.0 Revision 2.1	1113
Nitrite as N	300.0 Revision 2.1	1113
Total Nitrates	300.0 Revision 2.1	1113
Sulfate	300.0 Revision 2.1	1113

All acceptance criteria were met.

Client: Western Water and Land, Inc.
Project: GM-245-1 BWQ
Sample ID: Hayes Gulch UP
Legal Location:
Collection Date: 4/7/2021 12:00

Date: 26-Apr-21
Work Order: 2104159
Lab ID: 2104159-1
Matrix: WATER
Percent Moisture:

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Alkalinity as Calcium Carbonate						
			SM2320B		Prep Date: 4/19/2021	PrepBy: LRB
BICARBONATE AS CaCO3	260		20	MG/L	1	4/19/2021
CARBONATE AS CaCO3	ND		20	MG/L	1	4/19/2021
TOTAL ALKALINITY AS CaCO3	260		20	MG/L	1	4/19/2021
Diesel Range Organics						
			SW8015M		Prep Date: 4/14/2021	PrepBy: ASZ
Diesel Range Organics	ND		1	MG/L	1	4/14/2021 13:56
Surr: O-TERPHENYL	86		69-120	%REC	1	4/14/2021 13:56
GC/MS Volatiles						
			SW8260_25		Prep Date: 4/14/2021	PrepBy: TWK
BENZENE	ND		1	UG/L	1	4/14/2021 21:41
TOLUENE	ND		1	UG/L	1	4/14/2021 21:41
ETHYLBENZENE	ND		1	UG/L	1	4/14/2021 21:41
M+P-XYLENE	ND		1	UG/L	1	4/14/2021 21:41
O-XYLENE	ND		1	UG/L	1	4/14/2021 21:41
TOTAL XYLENES	ND		1	UG/L	1	4/14/2021 21:41
Surr: 4-BROMOFLUOROBENZENE	107		80-120	%REC	1	4/14/2021 21:41
Surr: DIBROMOFLUOROMETHANE	102		80-120	%REC	1	4/14/2021 21:41
Surr: TOLUENE-D8	99		80-120	%REC	1	4/14/2021 21:41
GASOLINE RANGE ORGANICS	ND		100	UG/L	1	4/14/2021 21:41
Ion Chromatography						
			EPA300.0		Prep Date: 4/9/2021	PrepBy: LMC
BROMIDE	ND		0.2	MG/L	1	4/9/2021 10:48
CHLORIDE	11		0.2	MG/L	1	4/9/2021 10:48
FLUORIDE	0.68		0.1	MG/L	1	4/9/2021 10:48
NITRATE/NITRITE AS N	ND		0.15	MG/L	1	4/9/2021 10:48
NITRATE AS N	ND		0.2	MG/L	1	4/9/2021 10:48
NITRITE AS N	ND		0.15	MG/L	1	4/9/2021 10:48
SULFATE	330		10	MG/L	10	4/9/2021 11:01
Dissolved Metals by 200.8						
			EPA200.8		Prep Date: 4/19/2021	PrepBy: TXS
BARIUM	0.047		0.001	MG/L	10	4/20/2021 15:22
BORON	0.077		0.05	MG/L	10	4/20/2021 15:22
CALCIUM	83		1	MG/L	10	4/20/2021 15:22
IRON	ND		0.15	MG/L	10	4/20/2021 15:22
MAGNESIUM	54		0.1	MG/L	10	4/20/2021 15:22
MANGANESE	0.0031	J	0.004	MG/L	10	4/20/2021 15:22
POTASSIUM	4.7		1	MG/L	10	4/20/2021 15:22
SELENIUM	0.0061		0.0015	MG/L	10	4/20/2021 15:22
SODIUM	110		1	MG/L	10	4/20/2021 15:22
STRONTIUM	1.5		0.001	MG/L	10	4/20/2021 15:22
pH						
			SM4500-H		Prep Date: 4/22/2021	PrepBy: LRB
PH	8.58		0.1	pH	1	4/22/2021
Specific Conductance in Water						
			SM2510B		Prep Date: 4/22/2021	PrepBy: LRB
SPECIFIC CONDUCTIVITY	1097		1	umhos/cm	1	4/23/2021
Total Dissolved Solids						
			SM2540C		Prep Date: 4/12/2021	PrepBy: LMC
TOTAL DISSOLVED SOLIDS	730		20	MG/L	1	4/12/2021

Client: Western Water and Land, Inc.
Project: GM-245-1 BWQ
Sample ID: Hayes Gulch DWN
Legal Location:
Collection Date: 4/7/2021 12:45

Date: 26-Apr-21
Work Order: 2104159
Lab ID: 2104159-2
Matrix: WATER
Percent Moisture:

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Alkalinity as Calcium Carbonate						
			SM2320B		Prep Date: 4/19/2021	PrepBy: LRB
BICARBONATE AS CaCO3	220		20	MG/L	1	4/19/2021
CARBONATE AS CaCO3	33		20	MG/L	1	4/19/2021
TOTAL ALKALINITY AS CaCO3	250		20	MG/L	1	4/19/2021
Diesel Range Organics						
			SW8015M		Prep Date: 4/14/2021	PrepBy: ASZ
Diesel Range Organics	ND		1	MG/L	1	4/14/2021 14:17
Surr: O-TERPHENYL	96		69-120	%REC	1	4/14/2021 14:17
GC/MS Volatiles						
			SW8260_25		Prep Date: 4/19/2021	PrepBy: AEW
BENZENE	ND		1	UG/L	1	4/19/2021 17:34
TOLUENE	ND		1	UG/L	1	4/19/2021 17:34
ETHYLBENZENE	ND		1	UG/L	1	4/19/2021 17:34
M+P-XYLENE	ND		1	UG/L	1	4/19/2021 17:34
O-XYLENE	ND		1	UG/L	1	4/19/2021 17:34
TOTAL XYLENES	ND		1	UG/L	1	4/19/2021 17:34
Surr: 4-BROMOFLUOROBENZENE	103		80-120	%REC	1	4/19/2021 17:34
Surr: DIBROMOFLUOROMETHANE	104		80-120	%REC	1	4/19/2021 17:34
Surr: TOLUENE-D8	98		80-120	%REC	1	4/19/2021 17:34
GASOLINE RANGE ORGANICS	52	J	100	UG/L	1	4/19/2021 17:34
Ion Chromatography						
			EPA300.0		Prep Date: 4/9/2021	PrepBy: LMC
BROMIDE	ND		0.2	MG/L	1	4/9/2021 11:14
CHLORIDE	12		0.2	MG/L	1	4/9/2021 11:14
FLUORIDE	0.71		0.1	MG/L	1	4/9/2021 11:14
NITRATE/NITRITE AS N	ND		0.15	MG/L	1	4/9/2021 11:14
NITRATE AS N	ND		0.2	MG/L	1	4/9/2021 11:14
NITRITE AS N	ND		0.15	MG/L	1	4/9/2021 11:14
SULFATE	330		10	MG/L	10	4/9/2021 11:27
Dissolved Metals by 200.8						
			EPA200.8		Prep Date: 4/19/2021	PrepBy: TXS
BARIUM	0.057		0.001	MG/L	10	4/20/2021 15:25
BORON	0.081		0.05	MG/L	10	4/20/2021 15:25
CALCIUM	80		1	MG/L	10	4/20/2021 15:25
IRON	ND		0.15	MG/L	10	4/20/2021 15:25
MAGNESIUM	55		0.1	MG/L	10	4/20/2021 15:25
MANGANESE	ND		0.004	MG/L	10	4/20/2021 15:25
POTASSIUM	5.3		1	MG/L	10	4/20/2021 15:25
SELENIUM	0.0068		0.0015	MG/L	10	4/20/2021 15:25
SODIUM	110		1	MG/L	10	4/20/2021 15:25
STRONTIUM	1.5		0.001	MG/L	10	4/20/2021 15:25
pH						
			SM4500-H		Prep Date: 4/22/2021	PrepBy: LRB
PH	8.64		0.1	pH	1	4/22/2021
Specific Conductance in Water						
			SM2510B		Prep Date: 4/22/2021	PrepBy: LRB
SPECIFIC CONDUCTIVITY	1110		1	umhos/cm	1	4/23/2021
Total Dissolved Solids						
			SM2540C		Prep Date: 4/12/2021	PrepBy: LMC
TOTAL DISSOLVED SOLIDS	760		20	MG/L	1	4/12/2021

Client: Western Water and Land, Inc.
Project: GM-245-1 BWQ
Sample ID: Hayes Gulch DWN
Legal Location:
Collection Date: 4/7/2021 12:45

Date: 26-Apr-21
Work Order: 2104159
Lab ID: 2104159-2
Matrix: WATER
Percent Moisture:

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
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Explanation of Qualifiers

Radiochemistry:

- "Report Limit" is the MDC
- U or ND - Result is less than the sample specific MDC.
- Y1 - Chemical Yield is in control at 100-110%. Quantitative yield is assumed.
- Y2 - Chemical Yield outside default limits.
- W - DER is greater than Warning Limit of 1.42
- * - Aliquot Basis is 'As Received' while the Report Basis is 'Dry Weight'.
- # - Aliquot Basis is 'Dry Weight' while the Report Basis is 'As Received'.
- G - Sample density differs by more than 15% of LCS density.
- D - DER is greater than Control Limit
- M - Requested MDC not met.
- M3 - The requested MDC was not met, but the reported activity is greater than the reported MDC.
- L - LCS Recovery below lower control limit.
- H - LCS Recovery above upper control limit.
- P - LCS, Matrix Spike Recovery within control limits.
- N - Matrix Spike Recovery outside control limits
- NC - Not Calculated for duplicate results less than 5 times MDC
- B - Analyte concentration greater than MDC.
- B3 - Analyte concentration greater than MDC but less than Requested MDC.

Inorganics:

- B - Result is less than the requested reporting limit but greater than the instrument method detection limit (MDL).
- U or ND - Indicates that the compound was analyzed for but not detected.
- E - The reported value is estimated because of the presence of interference. An explanatory note may be included in the narrative.
- M - Duplicate injection precision was not met.
- N - Spiked sample recovery not within control limits. A post spike is analyzed for all ICP analyses when the matrix spike and or spike duplicate fail and the native sample concentration is less than four times the spike added concentration.
- Z - Spiked recovery not within control limits. An explanatory note may be included in the narrative.
- * - Duplicate analysis (relative percent difference) not within control limits.
- S - SAR value is estimated as one or more analytes used in the calculation were not detected above the detection limit.

Organics:

- U or ND - Indicates that the compound was analyzed for but not detected.
- B - Analyte is detected in the associated method blank as well as in the sample. It indicates probable blank contamination and warns the data user.
- E - Analyte concentration exceeds the upper level of the calibration range.
- J - Estimated value. The result is less than the reporting limit but greater than the instrument method detection limit (MDL).
- A - A tentatively identified compound is a suspected aldol-condensation product.
- X - The analyte was diluted below an accurate quantitation level.
- * - The spike recovery is equal to or outside the control criteria used.
- + - The relative percent difference (RPD) equals or exceeds the control criteria.
- G - A pattern resembling gasoline was detected in this sample.
- D - A pattern resembling diesel was detected in this sample.
- M - A pattern resembling motor oil was detected in this sample.
- C - A pattern resembling crude oil was detected in this sample.
- 4 - A pattern resembling JP-4 was detected in this sample.
- 5 - A pattern resembling JP-5 was detected in this sample.
- H - Indicates that the fuel pattern was in the heavier end of the retention time window for the analyte of interest.
- L - Indicates that the fuel pattern was in the lighter end of the retention time window for the analyte of interest.
- Z - This flag indicates that a significant fraction of the reported result did not resemble the patterns of any of the following petroleum hydrocarbon products:
 - gasoline
 - JP-8
 - diesel
 - mineral spirits
 - motor oil
 - Stoddard solvent
 - bunker C

ALS -- Fort Collins

Date: 4/26/2021 5:08:

Client: Western Water and Land, Inc.

QC BATCH REPORT

Work Order: 2104159

Project: GM-245-1 BWQ

Batch ID: **HC210414-81-1**

Instrument ID **FUELS-1**

Method: **SW8015M**

LCS Sample ID: **HC210414-81** Units: **MG/L** Analysis Date: **4/14/2021 16:25**

Client ID: Run ID: **HC210414-81A** Prep Date: **4/14/2021** DF: **1**

Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
Diesel Range Organics	6.89	1.07	8.33		83	53-120				20	
Surr: O-TERPHENYL	1.61		1.67		97	69-120					

LCSD Sample ID: **HC210414-81** Units: **MG/L** Analysis Date: **4/14/2021 16:47**

Client ID: Run ID: **HC210414-81A** Prep Date: **4/14/2021** DF: **1**

Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
Diesel Range Organics	7.25	1.07	8.33		87	53-120		6.89	5	20	
Surr: O-TERPHENYL	1.58		1.67		95	69-120			2		

MB Sample ID: **HC210414-81** Units: **MG/L** Analysis Date: **4/14/2021 09:40**

Client ID: Run ID: **HC210414-81A** Prep Date: **4/14/2021** DF: **1**

Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
Diesel Range Organics	ND	1.1									
Surr: O-TERPHENYL	1.54				92	69-120					

The following samples were analyzed in this batch:

2104159-1	2104159-2
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Client: Western Water and Land, Inc.
 Work Order: 2104159
 Project: GM-245-1 BWQ

QC BATCH REPORT

Batch ID: **IP210419-3-5** Instrument ID **ICPMS2** Method: **EPA200.8**

LCS		Sample ID: IM210419-3			Units: MG/L		Analysis Date: 4/20/2021 15:01				
Client ID:		Run ID: IM210420-10A5			Prep Date: 4/19/2021		DF: 10				
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
BARIUM	0.0901	0.001	0.1		90	85-115				20	
BORON	0.865	0.05	1		87	85-115				20	
CALCIUM	9.99	1	10		100	85-115				20	
IRON	4.61	0.15	5		92	85-115				20	
MAGNESIUM	9.44	0.1	10		94	85-115				20	
MANGANESE	0.0858	0.004	0.1		86	85-115				20	
POTASSIUM	4.55	1	5		91	85-115				20	
SELENIUM	0.0921	0.0015	0.1		92	85-115				20	
SODIUM	10.7	1	10		107	85-115				20	
STRONTIUM	0.093	0.001	0.1		93	85-115				20	

LCSD		Sample ID: IM210419-3			Units: MG/L		Analysis Date: 4/20/2021 15:07				
Client ID:		Run ID: IM210420-10A5			Prep Date: 4/19/2021		DF: 10				
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
BARIUM	0.0918	0.001	0.1		92	85-115		0.0901	2	20	
BORON	0.932	0.05	1		93	85-115		0.865	7	20	
CALCIUM	9.78	1	10		98	85-115		9.99	2	20	
IRON	4.72	0.15	5		94	85-115		4.61	2	20	
MAGNESIUM	9.37	0.1	10		94	85-115		9.44	1	20	
MANGANESE	0.0881	0.004	0.1		88	85-115		0.0858	3	20	
POTASSIUM	4.75	1	5		95	85-115		4.55	4	20	
SELENIUM	0.0939	0.0015	0.1		94	85-115		0.0921	2	20	
SODIUM	10.8	1	10		108	85-115		10.7	1	20	
STRONTIUM	0.0948	0.001	0.1		95	85-115		0.093	2	20	

Client: Western Water and Land, Inc.
Work Order: 2104159
Project: GM-245-1 BWQ

QC BATCH REPORT

Batch ID: **IP210419-3-5** Instrument ID **ICPMS2** Method: **EPA200.8**

MB Sample ID: **FP210401-3** Units: **MG/L** Analysis Date: **4/20/2021 14:55**
Client ID: Run ID: **IM210420-10A5** Prep Date: **4/19/2021** DF: **10**

Analyte	Result	ReportLimit	Qual
BARIUM	ND	0.001	
BORON	ND	0.05	
CALCIUM	ND	1	
IRON	ND	0.15	
MAGNESIUM	ND	0.1	
MANGANESE	ND	0.004	
POTASSIUM	ND	1	
SELENIUM	ND	0.0015	
SODIUM	ND	1	
STRONTIUM	ND	0.001	

The following samples were analyzed in this batch:

2104159-1	2104159-2
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Client: Western Water and Land, Inc.
 Work Order: 2104159
 Project: GM-245-1 BWQ

QC BATCH REPORT

Batch ID: **VL210414-3-2** Instrument ID **HPV1** Method: **SW8260_25**

LCS		Sample ID: VL210414-33			Units: UG/L		Analysis Date: 4/14/2021 14:16				
Client ID:		Run ID: VL210414-3A			Prep Date: 4/14/2021		DF: 1				
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
GASOLINE RANGE ORGANICS	1060	100	1000		106	75-121				20	

LCSD		Sample ID: VL210414-33			Units: UG/L		Analysis Date: 4/14/2021 14:39				
Client ID:		Run ID: VL210414-3A			Prep Date: 4/14/2021		DF: 1				
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
GASOLINE RANGE ORGANICS	1090	100	1000		109	75-121		1060	3	20	

MB		Sample ID: VL210414-3			Units: UG/L		Analysis Date: 4/14/2021 17:25					
Client ID:		Run ID: VL210414-3A			Prep Date: 4/14/2021		DF: 1					
Analyte	Result	ReportLimit										Qual
GASOLINE RANGE ORGANICS	ND	100										

The following samples were analyzed in this batch:

Client: Western Water and Land, Inc.
 Work Order: 2104159
 Project: GM-245-1 BWQ

QC BATCH REPORT

Batch ID: VL210414-3-3 Instrument ID: HPV1 Method: SW8260_25

LCS		Sample ID: VL210414-3			Units: %REC		Analysis Date: 4/14/2021 15:26				
Client ID:		Run ID: VL210414-3A			Prep Date: 4/14/2021		DF: 1				
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
Surr: 4-BROMOFLUOROBENZENE	26.1		25		104	80-120					
Surr: DIBROMOFLUOROMETHANE	25.5		25		102	80-120					
Surr: TOLUENE-D8	24.8		25		99	80-120					
BENZENE	9.84	1	10		98	80-120				20	
TOLUENE	10.3	1	10		103	80-120				20	
ETHYLBENZENE	10.8	1	10		108	80-120				20	
M+P-XYLENE	19.7	1	20		98	80-120				20	
O-XYLENE	10.4	1	10		104	80-120				20	

LCSD		Sample ID: VL210414-3			Units: %REC		Analysis Date: 4/14/2021 16:38				
Client ID:		Run ID: VL210414-3A			Prep Date: 4/14/2021		DF: 1				
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
Surr: 4-BROMOFLUOROBENZENE	26		25		104	80-120			0		
Surr: DIBROMOFLUOROMETHANE	25.5		25		102	80-120			0		
Surr: TOLUENE-D8	24.9		25		100	80-120			0		
BENZENE	9.56	1	10		96	80-120		9.84	3	20	
TOLUENE	10.1	1	10		101	80-120		10.3	2	20	
ETHYLBENZENE	10.5	1	10		105	80-120		10.8	3	20	
M+P-XYLENE	19.2	1	20		96	80-120		19.7	2	20	
O-XYLENE	10.3	1	10		103	80-120		10.4	1	20	

MB		Sample ID: VL210414-3			Units: %REC		Analysis Date: 4/14/2021 17:25				
Client ID:		Run ID: VL210414-3A			Prep Date: 4/14/2021		DF: 1				
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
Surr: 4-BROMOFLUOROBENZENE	26.3		25		105	80-120					
Surr: DIBROMOFLUOROMETHANE	25.5		25		102	80-120					
Surr: TOLUENE-D8	24.4		25		98	80-120					
BENZENE	ND	1	10								
TOLUENE	ND	1	10								
ETHYLBENZENE	ND	1	10								
M+P-XYLENE	ND	1	20								
O-XYLENE	ND	1	10								
TOTAL XYLENES	ND	1	10								

The following samples were analyzed in this batch:

2104159-1

Client: Western Water and Land, Inc.
 Work Order: 2104159
 Project: GM-245-1 BWQ

QC BATCH REPORT

Batch ID: VL210419-3-1 Instrument ID: HPV3 Method: SW8260_25

LCS		Sample ID: VL210419-3			Units: %REC		Analysis Date: 4/19/2021 10:50				
Client ID:		Run ID: VL210419-3A3			Prep Date: 4/19/2021		DF: 1				
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
Surr: 4-BROMOFLUOROBENZENE	25.4		25		101	80-120					
Surr: DIBROMOFLUOROMETHANE	26		25		104	80-120					
Surr: TOLUENE-D8	24.9		25		99	80-120					
BENZENE	8.92	1	10		89	80-120				20	
TOLUENE	8.97	1	10		90	80-120				20	
ETHYLBENZENE	9.4	1	10		94	80-120				20	
M+P-XYLENE	17.4	1	20		87	80-120				20	
O-XYLENE	9.23	1	10		92	80-120				20	

LCSD		Sample ID: VL210419-3			Units: %REC		Analysis Date: 4/19/2021 11:13				
Client ID:		Run ID: VL210419-3A3			Prep Date: 4/19/2021		DF: 1				
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
Surr: 4-BROMOFLUOROBENZENE	25.7		25		103	80-120			1		
Surr: DIBROMOFLUOROMETHANE	25.8		25		103	80-120			1		
Surr: TOLUENE-D8	24.6		25		99	80-120			1		
BENZENE	8.92	1	10		89	80-120		8.92	0	20	
TOLUENE	9.02	1	10		90	80-120		8.97	1	20	
ETHYLBENZENE	9.37	1	10		94	80-120		9.4	0	20	
M+P-XYLENE	17.6	1	20		88	80-120		17.4	1	20	
O-XYLENE	9.24	1	10		92	80-120		9.23	0	20	

MB		Sample ID: VL210419-3			Units: %REC		Analysis Date: 4/19/2021 12:03				
Client ID:		Run ID: VL210419-3A3			Prep Date: 4/19/2021		DF: 1				
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
Surr: 4-BROMOFLUOROBENZENE	25.8				103	80-120					
Surr: DIBROMOFLUOROMETHANE	25.8				103	80-120					
Surr: TOLUENE-D8	24.7				99	80-120					
BENZENE	ND	1									
TOLUENE	ND	1									
ETHYLBENZENE	ND	1									
M+P-XYLENE	ND	1									
O-XYLENE	ND	1									
TOTAL XYLENES	ND	1									

The following samples were analyzed in this batch:

Client: Western Water and Land, Inc.
 Work Order: 2104159
 Project: GM-245-1 BWQ

QC BATCH REPORT

Batch ID: **VL210419-3-2** Instrument ID **HPV3** Method: **SW8260_25**

LCS		Sample ID: VL210419-33			Units: UG/L		Analysis Date: 4/19/2021 12:26				
Client ID:		Run ID: VL210419-3A3			Prep Date: 4/19/2021		DF: 1				
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
GASOLINE RANGE ORGANICS	1250	100	1000		125	75-121				20	*

LCSD		Sample ID: VL210419-33			Units: UG/L		Analysis Date: 4/19/2021 12:49				
Client ID:		Run ID: VL210419-3A3			Prep Date: 4/19/2021		DF: 1				
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
GASOLINE RANGE ORGANICS	1190	100	1000		119	75-121		1250	5	20	

MB		Sample ID: VL210419-3			Units: UG/L		Analysis Date: 4/19/2021 12:03					
Client ID:		Run ID: VL210419-3A3			Prep Date: 4/19/2021		DF: 1					
Analyte	Result	ReportLimit										Qual
GASOLINE RANGE ORGANICS	ND	100										

The following samples were analyzed in this batch:

Client: Western Water and Land, Inc.
 Work Order: 2104159
 Project: GM-245-1 BWQ

QC BATCH REPORT

Batch ID: **AK210419-1-1** Instrument ID **NONE** Method: **SM2320B**

LCS		Sample ID: AK210419-1			Units: MG/L		Analysis Date: 4/19/2021				
Client ID:		Run ID: AK210419-1A1			Prep Date: 4/19/2021		DF: 1				
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
TOTAL ALKALINITY AS CaCO3	96.1	5	100		96	85-115				15	

MB		Sample ID: AK210419-1			Units: MG/L		Analysis Date: 4/19/2021					
Client ID:		Run ID: AK210419-1A1			Prep Date: 4/19/2021		DF: 1					
Analyte	Result	ReportLimit										Qual
BICARBONATE AS CaCO3	ND	5										
CARBONATE AS CaCO3	ND	5										
TOTAL ALKALINITY AS CaCO3	ND	5										

The following samples were analyzed in this batch:

2104159-1	2104159-2
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Client: Western Water and Land, Inc.
 Work Order: 2104159
 Project: GM-245-1 BWQ

QC BATCH REPORT

Batch ID: **IC210409-1-2** Instrument ID **IC3** Method: **EPA300.0**

LCS		Sample ID: IC210409-1			Units: MG/L		Analysis Date: 4/9/2021 09:55				
Client ID:		Run ID: IC210409-1A3			Prep Date: 4/9/2021		DF: 1				
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
BROMIDE	10	0.2	10		100	90-110				15	
CHLORIDE	10.1	0.2	10		101	90-110				15	
FLUORIDE	4.96	0.1	5		99	90-110				15	
NITRATE AS N	10	0.2	10		100	90-110				15	
NITRITE AS N	4.99	0.15	4.98		100	90-110				15	
SULFATE	50.3	1	50		101	90-110				15	

LCSD		Sample ID: IC210409-1			Units: MG/L		Analysis Date: 4/9/2021 12:33				
Client ID:		Run ID: IC210409-1A3			Prep Date: 4/9/2021		DF: 1				
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
BROMIDE	9.95	0.2	10		99	90-110		10	1	15	
CHLORIDE	10.1	0.2	10		101	90-110		10.1	0	15	
FLUORIDE	4.99	0.1	5		100	90-110		4.96	1	15	
NITRATE AS N	10	0.2	10		100	90-110		10	0	15	
NITRITE AS N	5.01	0.15	4.98		101	90-110		4.99	0	15	
SULFATE	50.2	1	50		100	90-110		50.3	0	15	

MB		Sample ID: IC210409-1			Units: MG/L		Analysis Date: 4/9/2021 10:08					
Client ID:		Run ID: IC210409-1A3			Prep Date: 4/9/2021		DF: 1					
Analyte	Result	ReportLimit										Qual
BROMIDE	ND	0.2										
CHLORIDE	ND	0.2										
FLUORIDE	ND	0.1										
NITRATE AS N	ND	0.2										
NITRITE AS N	ND	0.15										
SULFATE	ND	1										

The following samples were analyzed in this batch: 2104159-1 2104159-2

Client: Western Water and Land, Inc.
 Work Order: 2104159
 Project: GM-245-1 BWQ

QC BATCH REPORT

Batch ID: PH210422-1-1 Instrument ID pH-2 Method: SM4500-H

CCV		Sample ID: CCV1			Units: pH		Analysis Date: 4/22/2021				
Client ID:		Run ID: PH210422-1A1			Prep Date: 4/22/2021		DF: 1				
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
PH	7.06	0.1	7			6.9-7.1					

CCV		Sample ID: CCV2			Units: pH		Analysis Date: 4/22/2021				
Client ID:		Run ID: PH210422-1A1			Prep Date: 4/22/2021		DF: 1				
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
PH	7.07	0.1	7			6.9-7.1					

CCV		Sample ID: CCV3			Units: pH		Analysis Date: 4/22/2021				
Client ID:		Run ID: PH210422-1A1			Prep Date: 4/22/2021		DF: 1				
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
PH	7.06	0.1	7			6.9-7.1					

DUP		Sample ID: 2104159-2			Units: pH		Analysis Date: 4/22/2021				
Client ID: Hayes Gulch DWN		Run ID: PH210422-1A1			Prep Date: 4/22/2021		DF: 1				
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
PH	8.64	0.1							8.64		

ICV		Sample ID: ICV			Units: pH		Analysis Date: 4/22/2021				
Client ID:		Run ID: PH210422-1A1			Prep Date: 4/22/2021		DF: 1				
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
PH	7.09	0.1	7			6.9-7.1					

The following samples were analyzed in this batch: 2104159-1 2104159-2

Client: Western Water and Land, Inc.
 Work Order: 2104159
 Project: GM-245-1 BWQ

QC BATCH REPORT

Batch ID: **SC210423-1-1** Instrument ID **pH-2** Method: **SM2510B**

CCV		Sample ID: CCV1		Units: umhos/cm			Analysis Date: 4/23/2021				
Client ID:		Run ID: SC210423-1			Prep Date: 4/22/2021		DF: 1				
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
SPECIFIC CONDUCTIVITY	1400	1	1410		99	90-110					

CCV		Sample ID: CCV2		Units: umhos/cm			Analysis Date: 4/23/2021				
Client ID:		Run ID: SC210423-1			Prep Date: 4/22/2021		DF: 1				
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
SPECIFIC CONDUCTIVITY	1380	1	1410		98	90-110					

DUP		Sample ID: 2104159-1		Units: umhos/cm			Analysis Date: 4/23/2021				
Client ID: Hayes Gulch UP		Run ID: SC210423-1			Prep Date: 4/22/2021		DF: 1				
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
SPECIFIC CONDUCTIVITY	1123	1						1097	2	15	

ICV		Sample ID: ICV		Units: umhos/cm			Analysis Date: 4/23/2021				
Client ID:		Run ID: SC210423-1			Prep Date: 4/22/2021		DF: 1				
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
SPECIFIC CONDUCTIVITY	682	1	718		95	90-110					

The following samples were analyzed in this batch:

2104159-1	2104159-2
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Client: Western Water and Land, Inc.
 Work Order: 2104159
 Project: GM-245-1 BWQ

QC BATCH REPORT

Batch ID: **TD210412-1-1** Instrument ID **Balance** Method: **SM2540C**

LCS		Sample ID: TD210412-1			Units: MG/L		Analysis Date: 4/12/2021				
Client ID:		Run ID: TD210422-1A1			Prep Date: 4/12/2021		DF: 1				
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
TOTAL DISSOLVED SOLIDS	370	20	400		92	85-115				14	

LCSD		Sample ID: TD210412-1			Units: MG/L		Analysis Date: 4/12/2021				
Client ID:		Run ID: TD210422-1A1			Prep Date: 4/12/2021		DF: 1				
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
TOTAL DISSOLVED SOLIDS	345	20	400		86	85-115		370	7	14	

MB		Sample ID: TD210412-1			Units: MG/L		Analysis Date: 4/12/2021				
Client ID:		Run ID: TD210422-1A1			Prep Date: 4/12/2021		DF: 1				
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
TOTAL DISSOLVED SOLIDS	ND	20									

The following samples were analyzed in this batch: 2104159-1 2104159-2